



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,383	07/28/2003	Richard A. Keane	CISCO-7472	6522

21921 7590 11/01/2005

DOV ROSENFELD
5507 COLLEGE AVE
SUITE 2
OAKLAND, CA 94618

EXAMINER

BAKER, STEPHEN M

ART UNIT PAPER NUMBER

2133

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,383

Applicant(s)

KEANEY ET AL.

Examiner

Stephen M. Baker

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because “unused bits” is considered needlessly confusing or elliptical in the context that the bits are actually being used, and apparently should be “reserved.” Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

Throughout the disclosure, “unused” is considered needlessly confusing or elliptical in the context that the bits are actually being used, and apparently should be “reserved.”

In paragraph 0004, “The packets exactly or substantially conform to a wireless network standard according to which each packet includes a header having unused bits set to a known value and bits having only legal/expected combinations in the case that the packet exactly conforms to the standard” is considered confusing or misdescriptive, and apparently should read as “The packets exactly or substantially conform to a wireless network standard according to which each packet has a header including reserved bits set to a known value and specified bits set according to legal/expected combinations” or the like.

In paragraph 0017, “some of the unused bits in the header, in particular some of the unused bits in the SERVICE field of a header that conforms to one of the IEEE 802.11 OFDM standards that according to the standard are used by a non-conforming transmitter” is considered confusing and apparently should be “some of the reserved

Art Unit: 2133

bits in the header, in particular some of the reserved bits in the SERVICE field of a header conforming to one of the IEEE 802.11 OFDM standards, are used by a non-conforming transmitter" or the like.

In paragraph 0028, "determine whether to" apparently should be deleted.

In paragraph 0050, the co-pending application serial number data is incomplete.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1: in lines 3-5, "a header that includes, in the case that the packet exactly conforms to the standard, bits having respective correct values, including unused bits set to a known value and combinations of bits being expected combinations" is unclear and apparently should be "a header that includes, in the case that the packet exactly conforms to the standard, reserved bits set to correct values and bits set to one of a plurality of correct combinations" or the like; in line 8, "unused bits" apparently should be "reserved bits;" in line 11, "unused bits have their respective preset values" apparently should be "reserved bits have their respective correct values."

In claims 2 and 3: "unused bits" apparently should be "reserved bits."

In claim 5: in lines 2, 5 and 10, "unused bits" apparently should be "reserved bits" and in line 11, "preset values" apparently should be "correct values."

In claim 6: "unused bits" apparently should be "reserved bits."

In claim 7: "modulated at a known data rate" and "modulated at a data rate indicated in the SIGNAL field" apparently should be deleted for being redundant with limitations in claim 2.

In claim 12: in line 5, "first" apparently should be "first field."

In claim 14: in lines 3-5, "a header that includes, in the case that the packet exactly conforms to the standard, bits having respective correct values, including unused bits set to a known value and combinations of bits being expected combinations" is unclear and apparently should be "a header that includes, in the case that the packet exactly conforms to the standard, reserved bits set to correct values and bits set to one of a plurality of correct combinations" or the like.

In claim 15: in line 4, "whether the checking" apparently should be "wherein the checking."

In claim 16: "unused bits" apparently should be "reserved bits."

In claim 18: in lines 2, 5 and 10, "unused bits" apparently should be "reserved bits" and in line 11, "preset values" apparently should be "correct values."

In claim 20: "modulated at a known data rate" and "modulated at a data rate indicated in the SIGNAL field" apparently should be deleted for being redundant with limitations in claim 14.

In claim 23: in lines 3-6, "a header that includes, in the case that the packet exactly conforms to the standard, bits having respective correct values, including unused bits set to a known value and combinations of bits being expected combinations" is unclear and apparently should be "a header that includes, in the case that the packet exactly conforms to the standard, reserved bits set to correct values and bits set to one of a plurality of correct combinations" or the like.

In claim 24: "unused bits" apparently should be "reserved bits."

In claim 25: in lines 2, 5 and 9, "unused bits" apparently should be "reserved bits" and in line 10, "preset values" apparently should be "correct values."

In claim 26: "unused bits" apparently should be "reserved bits."

In claim 29: in lines 5-7, "a header that includes, in the case that the packet exactly conforms to the standard, bits having respective correct values, including unused bits set to a known value and combinations of bits being expected combinations" is unclear and apparently should be "a header that includes, in the case that the packet exactly conforms to the standard, reserved bits set to correct values and bits set to one of a plurality of correct combinations" or the like; in line 10, "unused bits" apparently should be "reserved bits."

In claim 30: "unused bits" apparently should be "reserved bits."

In claim 31: in lines 2, 5 and 10, "unused bits" apparently should be "reserved bits" and in line 11, "preset values" apparently should be "correct values."

In claim 32: "unused bits" apparently should be "reserved bits."

In claim 33: "modulated at a known data rate" and "modulated at a data rate indicated in the SIGNAL field" apparently should be deleted for being redundant with limitations in claim 30.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,987,033 to Boer *et al* (hereafter "Boer").

Regarding claims 14 and 23, Boer discloses packet receiving arrangements in IEEE 802.11 WLAN networks. As Boer's packets are IEEE 802.11 compatible, Boer's packets presumably have PLCP headers meeting the recited header content limitations, including "unused" (*i.e.* reserved) bits (col. 11, line 14). As Boer's packet receiving arrangements process the preambles and headers of IEEE 802.11 packets, Boer's packet receiving arrangements provide a "PHY processor" that is presumably operably coupled to a "MAC processor" data input. A "start-of-packer (SOP) trigger that indicates that a packet may have been received" is generated by Boer's start-frame-delimiter (SFD) detection process (col. 10, lines 33+, especially lines 49+), requiring a "SOP detector." Modulated packet data is processed with Boer's PHY-layer receiving arrangements and the processed packet data is sent on to MAC-layer processing, and

Art Unit: 2133

so Boer's PHY-layer receiving arrangements provide a "receive signal processor."

Responsive to detection of the SFD, Boer's receiving arrangements (col. 11, lines 8+)

perform a CRC check on the IEEE 802.11 PLCP header and a check for "expected

combinations" (0Ah or 14h in the SIGNAL field). Boer's receiving arrangements

accordingly provide a "receive controller" operable to "accept an SOP trigger" and "after

such an SOP trigger is accepted, check ... bits in the header to determine whether they

have their respective correct values." If Boer's CRC or SIGNAL field checks fail, a

HUNT state results (col. 11, lines 32+), essentially indicating that the "SOP trigger" was false.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15, 17, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boer.

Boer does not specify whether the checking of the SIGNAL field bit combination in a "first field" is performed before or after performing the CRC check, which covers data including the "second field." It would have been obvious to a person having ordinary skill in the art at the time the invention was made to realize Boer's arrangements with Boer's SIGNAL field check being performed before Boer's CRC

Art Unit: 2133

check is performed. Such a realization would have been obvious because Boer's SIGNAL field check presumably requires less processing time than the CRC check and because an error in the SIGNAL field would presumably cause an incorrect CRC anyway.

Allowable Subject Matter

9. Claims 1-13 and 29-33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. Claims 16, 18, 19, 21, 22 and 25-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (571) 272-3814. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb